ECS Configuration Change Request

1. Originator	2. Log Date:	3. CCR #:	4. Rev:	5. Tel:	6. Rm #:	7. Dept.
Joan H. Schessler	**01/08/02**	**02-0008**	**—**	301.925.0426	2080C	SE

8. CCR Title: Revise Ticket RH_6B_03: Ingest of Aura and SORCE

9. Originator Signature/Date	10. Class	11. Type:	12. Need Date: 1/16/02
Joan H. Schessler /s/ 1/8/02	**II**	**CCR**	

13. Office Manager Signature/Date	14. Category of Change:	15. Priority: (If "Emergency" fill in Block 27).
Evelyn N. Nakamura /s/ 1/8/02	VDB	Routine

16. Documentation/Drawings Impacted:	17. Schedule Impact:	18. CI(s) Affected:
N/A	N/A	N/A

19. Release Affected by this Change:	20. Date due to Customer:	21. Estimated Cost:
N/A	1/15/02	None - Under 100K

22. Source Reference: ☐NCR (attach) ☐Action Item ☐Tech Ref. ☐GSFC ☐Other:

23. Problem: (use additional Sheets if necessary)
NCR ECSed31959 replaces data type ML3MMAP with two data types, ML3MMAPD and ML3MMAPS. Ticket RH_6B_03 lists ML3MMAP.

24. Proposed Solution: (use additional sheets if necessary)
Update RH_6B_03.

25. Alternate Solution: (use additional sheets if necessary)

26. Consequences if Change(s) are not approved: (use additional sheets if necessary)
The ticket is the primary, permanent reference for data types to be ingested. Incorrect tickets may lead to errors and rework.

27. Justification for Emergency (If Block 15 is "Emergency"):

28. Site(s) Affected: ☐EDF ☐PVC ☐VATC ☐EDC ☐GSFC ☐LaRC ☐NSIDC ☐SMC ☐AK ☐JPL ☐EOC ☐IDG Test Cell ☐Other

29. Board Comments:	30. Work Assigned To:	31. CCR Closed Date:

32. EDF/SCDV CCB Chair (Sign/Date): **Randall J. Miller /s/ 1/16/02**	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB
33. M&O CCB Chair (Sign/Date):	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS
34. ECS CCB Chair (Sign/Date):	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS

Latest CCR Affecting this Ticket: 01-0506A
Latest CCR DATE Affecting this Ticket: 07/02/2001

Ticket : RH_6B_03 (With L4 Mappings)

Ingest of 6B Aura and SORCE Instrument Data Types

Launch Criticality: 6B
Review: INS, SDSRV, SO
Priority: NO DATA
Number of Tracked Ticket Changes: 2

Ticket CCR Number*: 01-0506A
Ticket CCR Date*: 07/02/2001
* Represents changes to information from Ticket table only. Does not include information linked in from other tables.

NOTE: The number of tracked changes (above) represents the number of changes to this particular Ticket. Whenever the data appearing in this Ticket changes this number is incremented by 1.

External Interface Dependency:
This ticket identifies several data types that will be produced by certain of the Aura instrument (MLS, TES, HIRDLS) and the SORCE instrument data processing systems. These are SIPS-type systems and so the data will be ingested by ECS via the SIPS interface. Sample data is required for the ingest tests, particularly the PDR and .MET files. Although Ingest does not process the actual science data files so that any file would be acceptable for ingest processing, it is desireable for testing if actual instrument data files are used.

Subsystem Dependency:
Ingest, SDSRV

Preconditions:

Descriptor files for these data types need to be configured. The Earth Science Data Type (ESDT) shortnames for each of the data types are the same as the names given below for these products.

Comments:
The ingest of these data types is covered under the following SIPS ICD Volumes
SIPS ICD Vol. 8: MLS Data Flows (423-41-57-8) - Status: baselined.
SIPS ICD Vol. 10: TES Data Flows (423-41-57-10) - Status: not currently baselined.
SIPS ICD Vol x: HIRDLS Data Flows - Status: under development.

There is no SIPS ICD Volume for SORCE at this time

See also the SIPS ICD Volume 0 (423-41-57) that provides the basis for this protocol.

Operations Concept :

1. For the Aura instruments, ECS will ingest higher level (Level 1A and above) instrument data from SIPS-type processing systems established for these instruments: MLS, HIRDLS and TES. There will be a separate SIPS system for each of the instruments. TES instrument data will be ingested at the LaRC DAAC and the data from the other instruments will be ingested at the GSFC DAAC. The ingest protocols will conform to those identified in the SIPS ICD Volume 0. Data volume estimates for these data types are recorded in the F&PRS (423-41-02).

2. For the SORCE instruments, ECS will ingest all data from a SIPS-type processing system established for this mission. The data from the instruments will be ingested at the GSFC DAAC. The ingest protocols will conform to those identified in the SIPS ICD Volume 0. Data volume estimates for these data types are not available at this time but will be recorded in the F&PRS (423-41-02).

3. The following data types will be ingested for MLS:

ML1ENG	ML1LOG	ML1OA
ML1RADD	ML1RADF	ML2BRO
ML2CLO	ML2CO	ML2DGG
ML2DGM	ML2Z	ML2H2O
ML2HCL	ML2HCN	ML2HNO3
ML2HO2	ML2HOCL	ML2ICE
ML2LOG	ML2N2O	ML2O3
ML2OH	ML2OTH	ML2RHI
ML2SO2	ML2T	ML3DCLO
ML3DCO	ML3DZ	ML3DH2O
ML3DHCL	ML3DHCN	ML3DHNO3
ML3DICE	ML3DN2O	ML3DO3
ML3DOH	ML3DRHI	ML3DT
ML3DZMD	ML3DZMS	ML3LOG
ML3MMAPD	ML3MMAPS	ML3MZMD ML3MZMS

4. The following data types will be ingested for TES

TL1BL	TL1BN	TL2ATMTL
TL2ATMTN	TL2CH4L	TL2CH4N
TL2COL	TL2CON	TL2H2OL
TL2H2ON	TL2HNO3L	TL2NO2L
TL2NOL	TL2O3L	TL2O3N
TL3ATMTL	TL3ATMTN	TL3CH4L
TL3CH4N	TL3COL	TL3CON
TL3H2OL	TL3H2ON	TL3HNO3L
TL3NO2L	TL3NOL	TL3O3L
TL3O3N		

5. The following data types will be ingested for HIRDLS:

HIR1DRV	HIR2APR	HIR2BRWS
HIR2CFG	HIR2CLDS	HIR2CLIM
HIR2CTRL	HIR2INST	HIR2LOG
HIR2QA	HIR2TRA	HIR3CFG

HIRDLS1 HIRDLS2 HIRDLS3

6. The following data types will be ingested for SORCE:

SORL0TLM
SOR3TSID
SOR3TSI6
SOR3SSID
SOR3SSI6
SOR41NMD
SOR41NM6

Development Capability(ies):

Cap ID	Title	Description	Change Date
00030IN	Ingest Tailoring For Aura and SORCE Instrument Data Types	Support for ingest of Aura SORCE Instrument data	06/25/2001

Level 3 Requirement(s):

L3 ID	L3 Text	Clarification	Category	Release	CCR Num
DADS0190	The ECS shall receive from the SCF the following: a. Special products (L1-L4) b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Science Software g. Standard Products (L1-L4)	The ingest of SCF data products will be supported by the SIPS interface which is further specified in SDPS0092 and SDPS0093. Special Data Products are described in the F&PRS Glossary. ECS assumes that the DAACs are responsible for creating and testing ESDTs for Special Products. The volume of Special Data Products will not impact archive capacity significantly and they will be ingested by ECS through the SIPS interface. 5A: Support to AM-1 Mission 5B: Capability to be added to support PM-1 Mission 6B: CHEM-1	INS, SDSRV	5A 5B Partial	99-0651
SDPS0092	The ECS shall provide an interface as defined in the SIPS ICD for supporting external production and	Provided through SIPS ingest interface and machine-to-machine gateways.	SDSRV, INS	5B 6A	00-0020

	reprocessing of standard ECS products.	5B: PM-1 Ingest 6A: Machine to machine			

IRD Requirement(s):

NONE

Level 4 Requirement(s):

L4 ID	L4 Text	Release	CCR Num
S-INS-00600	The Ingest CI shall ingest and insert into the SDSRV at the GSFC DAAC the MLS SIPS data as follows: ML1ENG, ML1LOG, ML1OA ML1RADD, ML1RADF, ML2BRO ML2CLO, ML2CO, ML2DGG ML2DGM, ML2Z, ML2H2O ML2HCL, ML2HCN, ML2HNO3 ML2HO2, ML2HOCL, ML2ICE ML2LOG, ML2N2O, ML2O3 ML2OH, ML2OTH, ML2RHI ML2SO2, ML2T, ML3DCLO ML3DCO, ML3DZ, ML3DH2O ML3DHCL, ML3DHCN, ML3DHNO3 ML3DICE, ML3DN2O, ML3DO3 ML3DOH, ML3DRHI, ML3DT ML3DZMD, ML3DZMS, ML3LOG ML3MZMD, ML3MZMS ML3MMAPD ML3MMAPS	6B	01-0506A
S-INS-00601	The Ingest CI shall ingest and insert into the SDSRV at the LaRC DAAC the TES SIPS data as follows: TL1BL, TL1BN, TL2ATMTL TL2ATMTN, TL2CH4L, TL2CH4N TL2COL, TL2CON, TL2H2OL TL2H2ON, TL2HNO3L, TL2NO2L TL2NOL, TL2O3L, TL2O3N TL3ATMTL, TL3ATMTN, TL3CH4L TL3CH4N, TL3COL, TL3CON TL3H2OL, TL3H2ON, TL3HNO3L TL3NO2L, TL3NOL, TL3O3L TL3O3N	6B	01-0506A

S-INS-00602	The Ingest CI shall ingest and insert into the SDSRV at the GSFC DAAC the HIRDLS SIPS data as follows:				6B	01-0506A
	HIR1DRV	HIR2APR	HIR2BRWS			
	HIR2CFG	HIR2CLDS	HIR2CLIM			
	HIR2CTRL	HIR2INST	HIR2LOG			
	HIR2QA	HIR2TRA	HIR3CFG			
	HIRDLS1	HIRDLS2	HIRDLS3			
S-INS-00603	The Ingest CI shall ingest and insert into the SDSRV at the GSFC DAAC the SORCE spacecraft SIPS data as follows: SORL0TLM SOR3TSID SOR3TSI6 SOR3SSID SOR3SSI6 SOR41NMD SOR41NM6				6B	01-0506

L4 to L3 Mappings:

L4 ID	L3 ID	CCR Num
S-INS-00600	DADS0190	01-0506A
S-INS-00600	SDPS0092	01-0506A
S-INS-00601	DADS0190	01-0506A
S-INS-00601	SDPS0092	01-0506A
S-INS-00602	DADS0190	01-0506A
S-INS-00602	SDPS0092	01-0506A
S-INS-00603	DADS0190	01-0506A
S-INS-00603	SDPS0092	01-0506A

L4 to IRD Mappings:

NONE

Criteria:

Criteria Key	Criteria ID	Criteria Text	Type	CCR Num

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<td>1975</td>
<td>10</td>
<td>Verify that the system can ingest and archive the following MLS data types:
<table>
<tr><td>ML1ENG</td><td>ML1LOG</td><td>ML1OA</td></tr>
<tr><td>ML1RADD</td><td>ML1RADF</td><td>ML2BRO</td></tr>
<tr><td>ML2CLO</td><td>ML2CO</td><td>ML2DGG</td></tr>
<tr><td>ML2DGM</td><td>ML2Z</td><td>ML2H2O</td></tr>
<tr><td>ML2HCL</td><td>ML2HCN</td><td>ML2HNO3</td></tr>
<tr><td>ML2HO2</td><td>ML2HOCL</td><td>ML2ICE</td></tr>
<tr><td>ML2LOG</td><td>ML2N2O</td><td>ML2O3</td></tr>
<tr><td>ML2OH</td><td>ML2OTH</td><td>ML2RHI</td></tr>
<tr><td>ML2SO2</td><td>ML2T</td><td>ML3DCLO</td></tr>
<tr><td>ML3DCO</td><td>ML3DZ</td><td>ML3DH2O</td></tr>
<tr><td>ML3DHCL</td><td>ML3DHCN</td><td>ML3DHNO3</td></tr>
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ML3MMAPD ML3MMAPS</td>
<td></td>
<td>FC</td>
<td>01-0506A</td>
</tr>
<tr>
<td>1976</td>
<td>20</td>
<td>Verify that the system can ingest and archive the following TES data types:
<table>
<tr><td>TL1BL</td><td>TL1BN</td><td>TL2ATMTL</td></tr>
<tr><td>TL2ATMTN</td><td>TL2CH4L</td><td>TL2CH4N</td></tr>
<tr><td>TL2COL</td><td>TL2CON</td><td>TL2H2OL</td></tr>
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<tr><td>TL3NO2L</td><td>TL3NOL</td><td>TL3O3L</td></tr>
<tr><td>TL3O3N</td><td></td><td></td></tr>
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<td></td>
<td>FC</td>
<td>01-0506A</td>
</tr>
<tr>
<td>1977</td>
<td>30</td>
<td>Verify that the system can ingest and archive the following HIRDLS data types:
<table>
<tr><td>HIR1DRV</td><td>HIR2APR</td><td>HIR2BRWS</td></tr>
<tr><td>HIR2CFG</td><td>HIR2CLDS</td><td>HIR2CLIM</td></tr>
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</table></td>
<td></td>
<td>FC</td>
<td>01-0506A</td>
</tr>
</table>

1978	40	Verify that the system can ingest and archive the following SORCE spacecraft data types: SORL0TLM SOR3TSID SOR3TSI6 SOR3SSID SOR3SSI6 SOR41NMD SOR41NM6	FC	01-0506A

Test Case(s):

NONE